Erratum: Binary Black Hole Mergers from Globular Clusters: Implications for Advanced LIGO [Phys. Rev. Lett. **115**, 051101 (2015)]

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We have discovered an error in our integral over the globular cluster mass function that was reported in the Letter. The computational error artificially overcounted the contribution from high-mass globular clusters, artificially increasing the mean number of mergers per globular cluster over 12 Gyr. This changed the quoted values in Table I, and also increased the quoted detection rate in the Letter. The corrected Table I is reproduced below.

TABLE I. The corrected mean number of inspirals per GC over 12 Gyr.

Metallicity	Mass Cutoff		
	$4 \times 10^6 M_{\odot}$	$2 \times 10^7 M_{\odot}$	$2 \times 10^8 M_{\odot}$
Low	159	223	250
High	238	424	549

With the updated values from Table I, the quoted detection rate for Advanced LIGO decreases. The realistic rate of detections is now 30 mergers per year. The pessimistic rate is 10 mergers per year. The optimistic rate is 100 mergers per year.

Fortunately, this correction significantly decreases the uncertainties quoted in our original Letter. Originally, the dominant uncertainty was the upper-mass cutoff of the globular cluster mass function; however, by correctly accounting for the contribution of high-mass clusters, the upper-mass cutoff no longer heavily influences our rate estimate, and its associated uncertainty is significantly reduced. The dominant uncertainty in the updated estimate is now the spatial density of globular clusters per Mpc^3 in the local universe (ρ_{GC} , see the first Supplemental Material [10] in Ref. [1]). As noted in the Letter, the spatial density used in previous estimates of the binary black hole merger rate is $\sim 2.4 \text{ Mpc}^{-3}$ [2], similar to the number we employ in our *optimistic* rate estimate. As such, the rate we find from our models, when normalized to the same value of ρ_{GC} , is still ~ 5 times that of previous estimates [3].

This correction does not change the major conclusions of the Letter, that dynamically formed binaries contribute significantly to the overall merger rate, and that those binaries are characteristically more massive than those formed by pure stellar evolution. We reiterate that the mass difference between binaries formed dynamically and those formed in the field is heavily dependent on the physics of binary stellar evolution. In particular, we employed the original stellar wind prescription of Ref. [4], whereas more recent studies (e.g., Ref. [5]) have used the enhanced stellar wind prescription of Ref. [6]. Efforts to understand the contributions of varying binary stellar evolution physics are currently underway.

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